# Weston Solutions, Inc.

1435 Garrison St. Suite 100 Lakewood, CO 80215 Phone: 303-729-6100 Fax: 303-729-6101



Oversight

Management

Wetlands Construction

Repository Construction/Quality

Telemetry

			WEEK	(LY	REPORT				
Contract No./TDD		Project Title / Location					Dates of Report		Report No.
EP-S8-13-01		EPA Region 8 Start IV Contract					11/11/2014		10
0001/1306-07		Rico Argentine St Louis Tunnel							
START PERSONN	EL								
Position	Position		Name	E-Mail Ac	·	Phone No.			
Project Manager		Jan Christner			Jan.Christner@westonsolution		ns.com 505-269-192		5-269-1925
Field Team Lead		Elliott Petri			Elliott.Petri@westonsolutions.c		<u>com</u> 719		9-216-2754
Additional START				<u></u>					
WEATHER CONDI	TIONS								
10-Nov		11-Nov	12-Nov		13-Nov		14-Nov		15-Nov
-	20's - O	vercast	-		-	-			-
-	40's - O	vercast	-		-	-			-
PRP CONTRACTO	RS/LEA	D PERSO	NNEL/START FI	ELD S	STAFF				
Name		Company			Trade / Work Performed				

## **HEALTH & SAFETY**

Description of Health & Safety Actions Taken Today / Safety Inspections Conducted

**AEEC** 

AEEC

Weston Solutions

Anderson Engineering

Anderson Engineering

- Health and Safety meetings at 7:30 a.m. at Atlantic Richfield Rico office. Safety moment discussed cold weather and wrap up work for the end of field season.

# REPOSITORY/SOLIDS MANAGEMENT

### - Solids Removal

- + Dredging Pond 14 completed, quantity removed is being calculated based on post-removal survey.
- + Additional pond solids removal status (plan for last 2 feet of solids left in ponds) no update currently.

### - Repository

Elliott Petri

Ben Loomis

Tim Barbee

Ross Sollars

Sam Larsen

- + Repository excavation is halted for the season, the soil stockpile is located in the repository awaiting screening.
- + The starter dike on the northern end has been built up close to rough grade. The dike will be completed during the 2015 field season. Additional soil may be needed to complete the dike.
- + Liner installation will begin once the starter dike is completed next field season.

## Roadway Realignment and Buried Utility

+ Completed - road is graded and fencing/gates are placed on the western side for access limitation and slope safety.

WEEKLY REPORT							
Contract No./TDD	Project Title / Location	Dates of Report	Report No.				
EP-S8-13-01	EPA Region 8 Start IV Contract	11/11/2014	10				
0001/1306-07	Rico Argentine St Louis Tunnel	11/11/2014					

### **DEMONSTRATION WETLAND**

- Overall
- + The HF and VF wetland are complete and the systems are now in the inoculation phase. Sensors are now in operation.
- Horizontal Wetland Treatment Train
- + SF Wetland: Plants are thriving on a majority of the wetland, cold weather is limiting growth.
- + HSSF Wetland: The different varieties of plants are overall thriving, plants are green or browning due to cold weather.
- + Aeration Channel Added riprap and an electric aerator in the channel to speed up colonization, a larger electric aerator will be installed later in November.
- VF Biotreatment Train:
- +Completed, the aeration cascade has been covered to prevent snow build up in the channel.
- Telemetry:
- + Telemetry sensors are all operational, and calibrated. No wireless capability yet, the antenna permit is being negotiated with the city.
- Pilot Wetland: Pilot scale wetlands are removed and area is re-graded and riprap placed.

## **ADIT HYDRAULIC CONTROLS**

- Piping from AT-2 to pond 18 discharge piping is connected. Monitoring cable is run in conduit pipe to the historic lime plant.

# MINE WORKINGS

- No work ongoing, the property owner has installed a gate and fencing at the entrance to the site and access road to the top of the ridge.

### **SAMPLING**

- Water level measurement: 21 cm (approximate) at DR-3 measured at 0857 on 11/11/14 by Elliott Petri.
- Water level measurement: 16 cm (approximate) at DR-6 measured at 0928 on 11/11/14 by Elliott Petri.

# **GENERAL SITE WORK/MISCELLANEOUS ACTIVITIES**

- Mobilized on 11/10, arrived at site on 11/11 at 0700; demobilized on 11/11 at 1030.

# Weston Solutions, Inc

1435 Garrison St. Suite 100 Lakewood, CO 80215 Phone: 303-729-6100 Fax: 303-729-6101



# DAILY PRODUCTION & QUALITY CONTROL REPORT Contract No./TDD Project Title / Location Day of Report Report No. EP-S8-13-01 EPA Region 8 Start IV Contract 11-Nov-14 10 0001/1306-07 Rico Argentine St Louis Tunnel 11-Nov-14 10

# **DAILY PHOTO LOG**

Photo 1



Road realignment completed, facing northwest.

Photo 2



Western Slope of road realignment with fencing and signage, facing northwest.

Photo 3



Repository progress at the end of the field season, starter dike progress and remaining material to be screened. Facing south.

Photo 4



Laydown area demobilized for the winter, facing northeast.

# **Weston Solutions, Inc**

1435 Garrison St. Suite 100 Lakewood, CO 80215 Phone: 303-729-6100 Fax: 303-729-6101



# DAILY PRODUCTION & QUALITY CONTROL REPORT Contract No./TDD Project Title / Location Day of Report Report No. EP-S8-13-01 EPA Region 8 Start IV Contract 11-Nov-14 10 0001/1306-07 Rico Argentine St Louis Tunnel 11-Nov-14 10 Photographer: Elliott Petri

# **DAILY PHOTO LOG**

### Photo 5



Site drainage grading and erosion controls installed between the horizontal flow wetlands and the settling basins, facing northeast.

### Photo 6



Site drainage grading and erosion controls installed surrounding the vertical wetlands aeration cascade with newly installed snow cover, facing north.

Photo 7



Repository stormwater drainage installed at the southern end of the repository, facing east.

Photo 8



Adit piping installation completed, facing east.

Weston Solutions, Inc 1435 Garrison St. Suite 100 Lakewood, CO 80215 Phone: 303-729-6100 Fax: 303-729-6101



DAILY PRODUCTION & QUALITY CONTROL REPORT							
Contract No./TDD	Project Title / Location	Day of Report	Report No.				
EP-S8-13-01	EPA Region 8 Start IV Contract	11-Nov-14	10				
0001/1306-07	Rico Argentine St Louis Tunnel	11-1100-14					
Photographer:	Elliott Petri						
DAILY BUILDED LOG							

# **DAILY PHOTO LOG**

Photo 9



Vertical flow bioreactor, facing west.

Photo 10



Wetlands settling basins, facing northwest.

Photo 11



Horizontal surface flow wetlands (foreground) and subsurface flow wetlan (background), facing west.

Photo 12



Aeration channel (foreground) and rock drain (background, covered with black insulating balls), facing southwest.

# **Weston Solutions, Inc**

1435 Garrison St. Suite 100 Lakewood, CO 80215 Phone: 303-729-6100 Fax: 303-729-6101



### **DAILY PRODUCTION & QUALITY CONTROL REPORT** Contract No./TDD Project Title / Location Day of Report Report No. **EPA Region 8 Start IV Contract** EP-S8-13-01 11-Nov-14 10 0001/1306-07 **Rico Argentine St Louis Tunnel** Photographer: Elliott Petri **DAILY PHOTO LOG**

Photo 13



Repository overview, facing south.

Photo 14



Repository overview, facing west.

Photo 15



Photo 16



Wetlands overview, facing northwest.